

EX PARTE OR LATE FILED



DOCKET FILE COPY ORIGINAL

Carol L. Bjelland
Director
Regulatory Matters

GTE Service Corporation
1850 M Street, N.W., Suite 1200
Washington, D.C. 20036
(202) 463-5292

February 22, 1994

RECEIVED

FEB 22 1994

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Mr. William Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N. W.
Washington, D. C. 20554

RE: EX PARTE - PP DOCKET 93-253

Dear Mr. Caton:

Today, representatives of GTE Service Corporation met with several members of the Commission's Office of Plans and Policy to discuss issues raised in the above-referenced proceeding. GTE's remarks reflected the positions it has previously filed with the Commission concerning this matter. The attached material was also used in the discussion.

Please include this letter, and the attached document, in the record of this proceeding in accordance with the Commission's rules concerning ex parte communications.

Sincerely,



Carol L. Bjelland

No. of Copies rec'd
List ABCDE

021

Summary

The FCC will award PCS licenses under competitive bidding procedures, as recently authorized by Congress. The NTIA has expressed a preference for an Electronic Interactive Combinatorial Auction (EICA) where computers and terminals would be used for bidders at the proposed auction. The computer would then be used to collate the bids, calculate the potential revenue, and report the results. GTE, with other respondents has agreed in principle to the concept of an electronic auction process and proposes that it is practical for the auction of PCS spectrum licenses.

Implementation of an electronic auction could be accomplished using available communications technologies from widely available narrowband to emerging broadband. This paper will outline a solution which uses the available narrowband technology of the Public Switched Telephone Network (PSTN). This approach is viewed as pragmatic and inexpensive to maximize the availability, reliability, and ubiquity of the underlying technologies which would support an electronic auction. The solution enables the use of off-the-shelf products to be maximized and increases the likelihood that this solution can be implemented given a short implementation timeframe and the administrative constraints relating to acquisition of products and services. With the objective to implement a temporary network which would provide ubiquitous service, using the PSTN is seen as both a practical and feasible alternative, which has supported distributed trading systems such as the Pacific Stock Exchange for years. As seen in figure 1, implementation would be straightforward to minimize cost and risk to the Government.



Figure 1: Using the PSTN, an electronic auction could be conducted from a centralized location.

Proposed High Level Solution

As seen in figure 2 below, the logical interfaces and required processes are defined. A modem pool and communications server (perhaps several) would be required in addition to the main auction CPU. A user would call in using the PSTN to the modem pool, which would establish a link to the communications server. A controlled user account would then be accessed for system security.

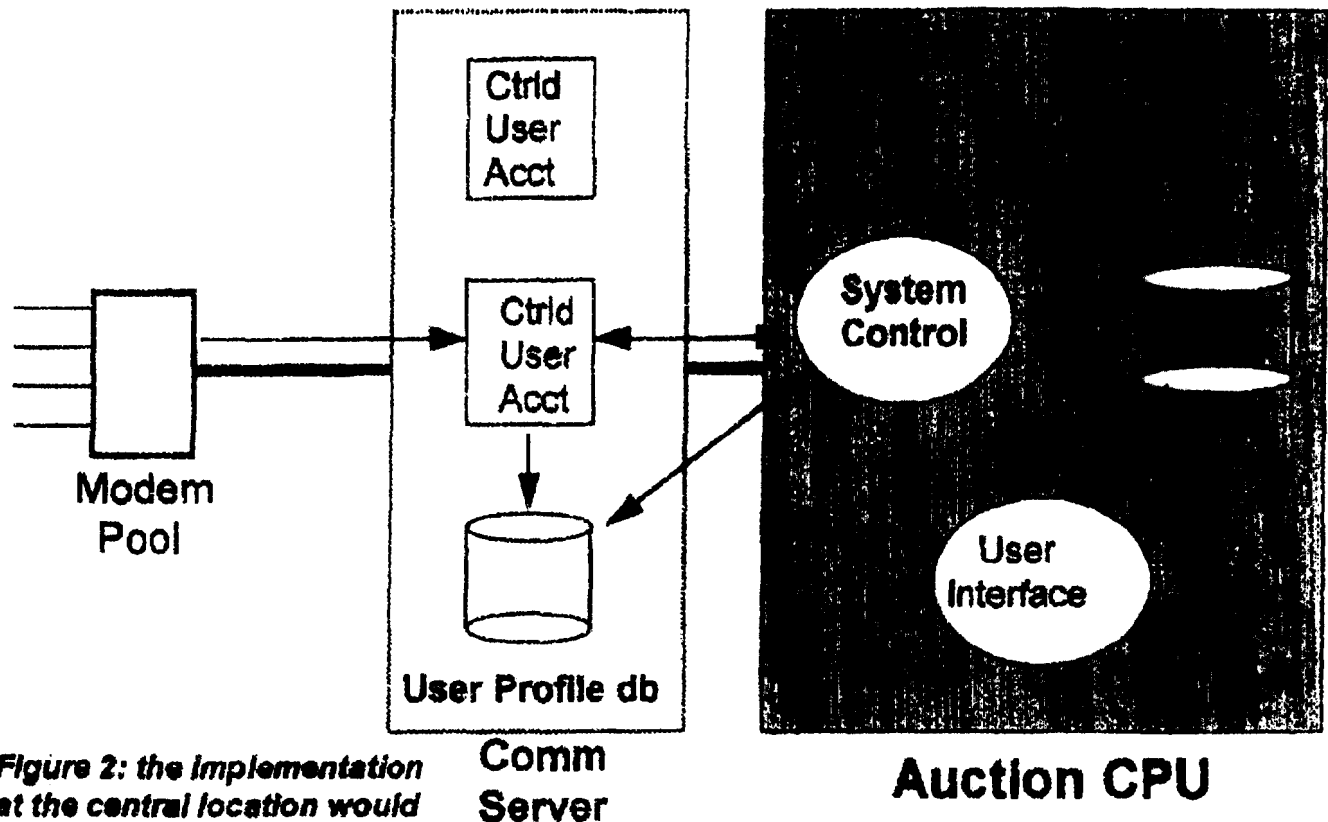


Figure 2: the implementation at the central location would ensure universal access to registered participants.

The controlled user account would access the user profile database, which would contain pertinent data about each of the auction participants. After successfully accessing the user account, the bidder would be able to submit a bid. The communications server with resident security application would be logically and physically separate from the main CPU to ensure that the auction database is adequately partitioned from unauthorized user access. System control on the main auction CPU would provide system flow control and management. Auction and security management could be implemented through a user interface on the main CPU or communications server.

The communications server could be a UNIX workstation, mini, or mainframe depending upon the sizing required for the number of auction participants and the configuration of the main auction CPU. An X-windows/motif user interface could be implemented, which could provide the front end for the auction and security applications software. There would be some limited software support necessary prior to the auction beginning to configure user accounts and the interfaces required between the main CPU and communications server. The configuration of the main auction CPU and its location would have to be determined prior to making accurate estimates of scope of work required to implement this solution.

This technical solution would use COTS software products to the fullest extent possible to provide the communications, systems, and security management features necessary to conduct an electronic auction. The type and configuration of the main CPU is critical, but it is assumed that any development would be constrained to the central location where it would be implemented and managed with the least cost and risk. The requirements for the bidders would be minimal as they would be able to submit bids and receive information about auction progress using a PC and modem.

Conclusion

There are a number of options available for implementation of the electronic auction process, which range from use of ubiquitous narrowband technology to high speed broadband implementations.

The described narrowband implementation places the burden of technology infusion at the centralized auction location and relies upon standard phone lines for bidder communications to the auction site. Using off-the-shelf products and limited customized software development, an interactive system could be quickly designed, implemented, and tested which would make a simultaneous electronic auction possible. The Public Network provides a reliable communications architecture with built-in redundancies for the necessary ubiquitous infrastructure which can be accessed nationwide by any potential bidder. The cost and risks associated with implementing this solution would be minimal, especially when compared to other implementation approaches. A systems integration contractor could provide the support necessary to assist the FCC in defining requirements and managing the implementation to make this solution a reality.